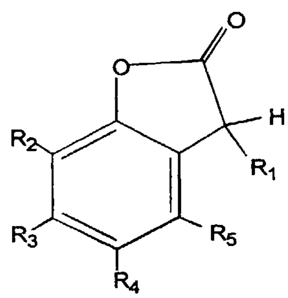
Claims

1. An aromatic monovinyl resin composition comprising (a) a polymer comprising an aromatic monovinyl monomer and having a weight average molecular weight of 150,000-700,000 and (b) a 3-arylbenzofuranone represented by the following formula (I):



(I)

(in the formula, R_1 represents a substituted or unsubstituted carbocyclic aromatic group or a substituted or unsubstituted heterocyclic aromatic group and R_2, R_3, R_4 and R_5 represent independently a hydrogen atom or an alkyl group of 1-5 carbon atoms), wherein amount of the 3-arylbenzofuranone is 0.006-0.5% by weight based on the weight of the polymer and residual amount of the aromatic monovinyl monomer in the aromatic monovinyl resin composition is not more than 100 ppm.

2. An aromatic monovinyl resin composition according to claim 1, wherein the total residual amount of a dimer and a trimer of the aromatic monovinyl monomer is not more than 0.4% by weight.

3. A foamed sheet comprising the aromatic monovinyl resin composition of claim 1 or 2.

4. A non-foamed sheet comprising the aromatic monovinyl resin composition of claim 1 or 2.

5. A formed product comprising the foamed sheet of claim 3.

6. A formed product comprising the non-foamed sheet of claim 4.

7. A method for producing the aromatic monovinyl resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a polymerization step in which the aromatic monovinyl monomer is polymerized.

8. A method for producing the aromatic monovinyl resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a devolatilization step in which an unreacted material and/or a solvent are removed from a polymerization solution obtained at the polymerization step.

9. A method for producing the aromatic monovinyl resin composition of claim 1, wherein the 3-arylbenzofuranone represented by the formula (I) is added after termination of the polymerization step and before the devolatilization step.

10. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein the devolatilization is carried out until the

total residual amount of a dimer and a trimer of the aromatic monovinyl monomer reaches not more than 0.4% by weight at the devolatilization step.

11. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein after the 3-arylbenzofuranone is added to the polymerization solution, these are uniformly mixed.

12. A method for producing the aromatic monovinyl resin composition according to any one of claims 7-9, wherein the aromatic monovinyl monomer is polymerized by radical polymerization method, anionic polymerization method or ionic polymerization method using a polymerization initiator at the polymerization step.

13. A method for producing the aromatic monovinyl resin composition according to claim 7, wherein the 3-arylbenzofuranone represented by the formula (I) is added when polymerization rate of the aromatic monovinyl monomer reaches 50% or more.

14. A method for producing the aromatic monovinyl resin composition according to claim 7, wherein the 3-arylbenzofuranone represented by the formula (I) is added at a polymerization temperature of 160°C or lower.